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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent
appln. of: Thomas Welsh et al.

Serial No.: 09/935,926

Filed: August 23, 2001

For: **LINEAR COMPRESSION
LATCH**

Examiner: Thomas Y. Ho

Art Unit: 3677

Att'y Docket: 195-01

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APPEAL BRIEF

Sir:

This appeal brief is submitted under certificate of mailing on Monday, March 7, 2005 in support of Notice of Appeal filed November 8, 2004, in response to the Examiner's Action mailed August 5, 2004 in the above-referenced patent application finally rejecting claims 3 and 5-8. A petition for a two-month extension of time for response accompanies this brief.

I. Real Party in Interest

This application has been assigned to Southco, Inc., a Delaware corporation.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of the Claims

The claims in the application are the sole independent claim, claim 8, and claims 3 and 5-7 depend from claim 8 either directly (claims 3 and 5) or ultimately (claims 6 and 7).

No claims stand allowed.

Claims 3 and 5-8 stand twice rejected.

The claims on appeal are claims 3 and 5-8.

IV. Status of Amendments

There are no pending amendments.

V. Concise Explanation of the Subject Matter Defined in the Sole Independent Claim

The present invention provides a simple linear compression latch (Figure 1) that can be easily and securely mounted to a door or panel.

The linear compression latch 10 comprises a housing 20 and a lever handle 100 rotatable by an operator between a first position (Figures 23 and 24) and a second position (Figures 25 and 26). The lever handle 100 is mounted in the housing 20. As shown in Figure 1, the latch 10 also comprises a pawl 140 mounted for substantially linear motion. The pawl 140 is actuated by rotation of the lever handle 100. The pawl 140 travels substantially linearly between an open position to a closed position as the lever handle 100 is rotated between the first position to second position. The pawl 140 is mounted to travel between the open position along a first path and an intermediate position. Further, the pawl 140 is mounted to travel in a second path in a direction

substantially perpendicular to the first path between the intermediate position and the closed position.

VI. Concise Statement Listing Each Ground of Rejection

A. Claims 3 and 5-8 stand rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-3 and 9-10 of U.S. Patent 6,527,307 (double-patenting rejection).

B. Claims 3 and 5-7 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

C. Claims 3 and 5-8 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,201,557 ("Schlack").

D. Claims 3 and 5-8 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,858,970 ("Tedesco").

VII. Argument

The Examiner's rejections are not correct.

A. Claims 3 And 5-8 Do Not Claim The Same Invention As That Of Claims 1-3 And 9-10 Of U.S. Patent 6,527,307

Claims 3 and 5-8 stand rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-3 and 9-10 of U.S. Patent 6,527,307 (double-patenting rejection). Careful consideration and reversal of the Examiner's rejection are respectfully requested.

In making his rejection, the Examiner stated that claims 3, 5, and 8 were rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-3 and 9-10 of prior U.S. Patent No. 6,527,307, and that this is a double patenting rejection.

To determine whether there is "same invention" type double-patenting proscribed by 35 U.S.C. 101, the test of In re Vogel, 422 F.2d 438 (CCPA 1970), should

be applied: whether one of the claims could be literally infringed without literally infringing the other. If it could be, the claims do not define identically the same invention.

However, claim 1 of the '307 patent and present claim 8 are not identical in scope. They differ in that in present claim 8 the actuating element is a "lever handle" whereas in claim 1 of the '307 Patent the actuating element is a "lever." This is not merely a difference in labeling, but instead is intended to reflect a genuine difference in claim scope, reflecting structural differences in the disclosed embodiments. The presently claimed invention is not identical to that claimed in claim 1 of the '307 Patent. In preferred embodiment disclosed in the '307 Patent, the actuating mechanism is a handle operating through a link to move the pawl. Both the handle and the link operate as lever in this mechanism. Thus, claim 1 of the '307 Patent requires only a single lever, which can be either the handle or the link in the disclosed embodiments, and other embodiments are conceivable, such as a electrically actuated latch in which a solenoid operates, through a lever/link, the pawl. Present claim 8 is narrower, in the sense that the lever is a "lever handle," that is, a subset of the set "levers." Thus, the claimed inventions are not identical, and the "same invention"-type double patenting rejection should be reversed. Thus, claim 1 of the '307 patent could be infringed by an electrically actuated latch in which a lever/link is operated to the pawl, while such a mechanism would not literally infringe present claim 8. Under the "same invention" test of In re Vogel, the claims under consideration do not claim the same identical invention. The double patenting rejection entered under 35 U.S.C. 101 should be overruled for this reason.

B. The Subject Matter of Claims 3 and 5-7 Is Not Indefinite

Claims 3 and 5-7 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Careful consideration and reversal of this rejection are respectfully requested.

The Examiner states that as to claim 3, Applicant recites "the first path is linear". The Examiner further states that applicant's pawl does not move in a linear path because the pawl 140 rotates, traveling in arcs. According to the Examiner, by Applicants' own admission (page 4, first paragraph, of Applicants' response dated May 20, 2004), the movement of the pawl is only "substantially linear" and not linear, as recited in claim 3. The Examiner further states that the applicants further acknowledge that the pawl moves "with a very slight downward rotation of the forward end of the pawl" and "with a slight rotation of the forward end of the pawl". The Examiner concludes that because the pawl rotates the motion of the pawl cannot be linear. The Examiner further observes that it should be noted that the assembly in applicants' patented invention U.S. 6,527,307, the path of the pawl may be linear, but this is not the case for the instant application because of the different shapes of the grooves which the pins on the pawl must follow. The Examiner further states that as to claim 5, applicants recite "the second path is linear". The Examiner asserts that applicants' pawl does not move in a linear path because the pawl 140 rotates, traveling in arcs. The Examiner states that by applicants' own admission (page 4, first paragraph of the response dated May 4, 2004), the movement of the pawl is only "substantially linear" and not linear, as recited in claim 3. The Examiner further states that applicants further acknowledge that the pawl moves "with a very slight downward rotation of the forward end of the pawl" and "with a slight rotation of the forward end of the pawl." The Examiner concludes that because the pawl rotates the motion of the pawl cannot be linear.

In making this rejection, the Examiner improperly reads a limitation implicit in applicants' preferred embodiment into applicants' claims. In the Examiner's Action of

April 27, 2004, the Examiner rejected all claims under 35 U.S.C. 112, second paragraph, as being indefinite. The Examiner alleged that the language of claim 8, requiring "pawl mounted for substantially linear motion" was a misdescription because the drawing allegedly showed that this was physically impossible. In response, applicants successfully argued that the Examiner was improper because the Examiner had confused the characteristics of the preferred embodiment disclosed in the specification with applicants' invention as claimed in independent claim 8.

In the new 112, second paragraph rejection, the Examiner makes the same fundamental error. The "admissions" relied upon by the Examiner in making this rejection occur in a discussion of the preferred embodiment and claim 8. Applicants' comments are simply inapplicable to dependent claims 3 and 5-7. The rejection should be reversed for this reason.

C. Claims 3 And 5-8 Are Not Anticipated by Schlack

Claims 3 and 5-8 stand rejected under 35 U.S.C 102(b) as being anticipated by U.S. Patent 5,201,557 ("Schlack"). This rejection is respectfully traversed, and careful consideration and reversal of the rejection are respectfully requested.

The Examiner states that as to claim 8, Schlack discloses, a linear compression latch comprising: a housing 110; a lever handle 50 rotatable by an operator between a first position and a second position, the lever handle being mounted in the housing; a pawl 94/96 mounted for substantially linear motion, the pawl being actuated by rotation of the lever handle and traveling substantially linearly between an open position to a closed position as the lever handle is rotated between the first position to second position; wherein the pawl is mounted to travel between the open position along a first path and an intermediate position; and wherein the pawl is mounted to travel in a second path in a direction substantially perpendicular to the first path

between the intermediate position and the closed position. The Examiner invites a comparison between Figures 3 and 5.

The Examiner also states that as to claim 3, Schlack discloses wherein the first path is linear. The Examiner further states that as to claim 5, Schlack discloses, wherein the second path is linear. The Examiner also assert that as to claim 6, Schlack discloses, further comprising a carriage 80, the carriage being mounted for linear motion within the housing 110, the pawl being mounted within the carriage. In addition, the Examiner states that as to claim 7, Schlack discloses, further comprising connection means 59/61 for rotatably connecting the lever handle and the pawl.

The Examiner explains that applicants previously argued (see Appeal Brief, pg. 6, filed on 7/21/03) that Schlack fails to disclose all of the limitations because the claim "requires that the second path of the pawl be substantially perpendicular to the first path." The Examiner states that the rejection under Schlack was withdrawn due to this narrow interpretation of substantially, because Schlack does not disclose perpendicular first and second paths. The Examiner notes that in the most recent response (Amendment, pg. 3-4, filed 5/20/04), applicants now argue that the term "substantially" has a broad interpretation. The Examiner states that applicant's pawl 140 travels in arcuate paths (by applicants' own alleged admission, referencing page 4) due to the different shapes of the slots in which the pins of the pawl travel. The Examiner concludes that it is not possible for applicants' pawl to travel linear paths, nor is it possible that the pawl travel between two perpendicular paths because arcuate paths are not in any way linear or perpendicular to one another. The Examiner concludes that because applicants now construe the term "substantially" linear and "substantially" perpendicular to cover non-linear and non-perpendicular movements, Schlack anticipates the claims. The Examiner admits that although the pawl 94/96 in Schlack does not move in absolutely perpendicular paths, the pawl does move in "substantially" perpendicular paths between the positions of Figures 3 and 5.

Applicants respectfully submit that Schlack does not disclose a latch having each and every limitation claimed in claims 3 and 5-8, and that Schlack cannot and does not anticipate applicants' invention as there claimed for that reason. In particular, the pawl in Schlack is not mounted to travel between the open position along a first path and an intermediate position, and to travel in a second path in a direction substantially linear to the first path between the intermediate position and the closed position.

Schlack discloses a slide fastener that secures a door of an electrical cabinet to the cabinet frame, as shown in Schlack Figures 3 and 4 reproduced below.

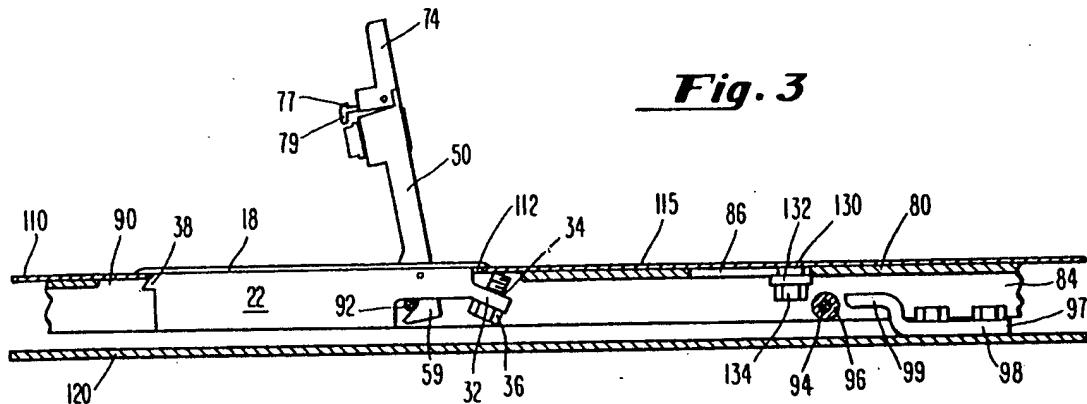


Fig. 3

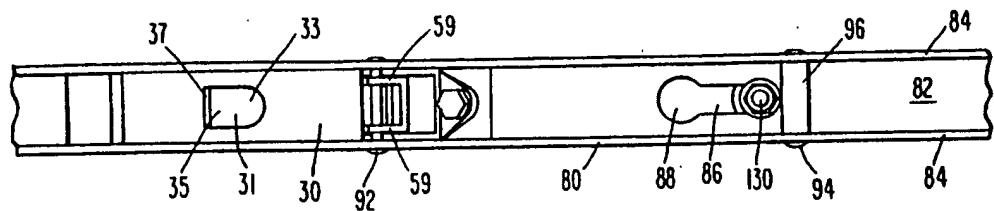


Fig. 4

As the lever assembly 50 is rotated downwardly (counterclockwise in Figure 3), a slide assembly 80 (fabricated from channel stock) is pushed from left to right in a strictly linear motion, as it is confined between the lower surface of the door 110 and the upper surfaces of a plurality of friction-reducing washers 132. The washers 132 are mounted on posts 130 passing through respective slots 86 formed in the base plate 82 of the slide assembly 80 (col. 4, lines 30-47).

The slide assembly 80 includes a plurality of spaced rods 94, extending between and perpendicular to the side 84 of the slide assembly 80. A rotatable sleeve 96 is mounted on each of the rods 94. The rods 94 are positioned to be engaged by a plurality of respective "s"-shaped slide keepers 98. The slide keepers 98 have a first leg 97 bolted to the cabinet frame 120. The second leg 99 has a camming surface formed thereon, such that as the slide faster 10 is closed, the slide assembly 80 is moved from left to right in Figure 3. The sleeves 96 are forced under the second legs 99, thereby drawing the door 110 towards the frame 120 and compressing the door gasket between the door 110 and the frame 120 of the cabinet 100. The resulting locked position of the latch is shown in Schlack Figs. 5 and 6 reproduced below.

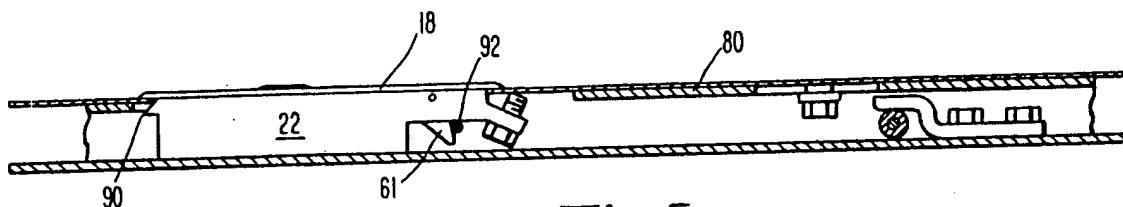


Fig. 5

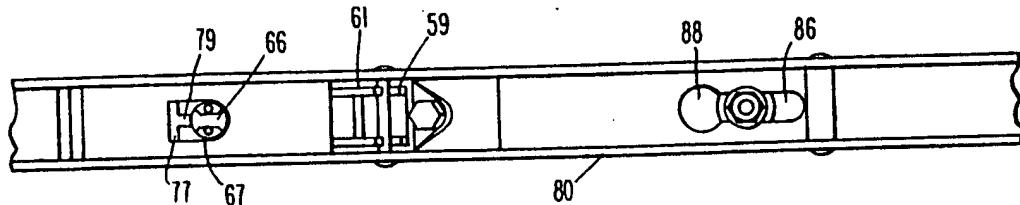


Fig. 6

Instead, as can be seen in Figs. 3-6, Schlack's pawl is "mounted for travel" as a unit with the slide 84 relative to the cabinet door 110 in a single linear path only, and does not change direction at some intermediate position. Nor does the pawl follow an arcuate path as alleged by the Examiner. The Examiner apparently is viewing the motion of the pawl with respect to the slide keeper 98 bolted to the cabinet frame 120. However, the Examiner's focus is incorrect, because the slide 84 is not "mounted for

travel" on the cabinet frame 120, but rather on the door 110, and its motion with respect to the door 110 is strictly linear.

Because the cited reference does not meet each and every limitation of independent claim 8, it cannot anticipate any of the claims that depend from claim 8, namely claims 3 and 5-7.

Consequently, applicants respectfully request reconsideration and withdrawal of the rejection entered over Schlack with respect to the amended claims.

Applicant's presently claimed invention is also unobvious over Schlack. There was nothing in Schlack to suggest applicant's presently claimed invention at the time the invention was made to one of ordinary skill in the art. There is nothing in Schlack to motivate one of ordinary skill in the art to modify Schlack to realize the presently claimed invention.

D. Claims 3 and 5-8 Are Not Anticipated by Tedesco

Claims 3 and 5-8 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,858,970 ("Tedesco"). Careful review and reversal of this rejection are respectfully requested.

The Examiner states that as to claim 8, Tedesco discloses, a linear compression latch comprising: a housing (aircraft member); a lever handle 52 rotatable by an operator between a first position (see Figure 8) and a second position (see Figure 2), the lever handle being mounted in the housing; a pawl 28 mounted for substantially linear motion, the pawl being actuated by rotation of the lever handle and traveling substantially linearly between an open position to a closed position as the lever handle is rotated between the first position to second position; wherein the pawl is mounted to travel between the open position (see Figure 8) along a first path and an intermediate position (see Figure 7); and wherein the pawl is mounted to travel in a second path in a

direction substantially perpendicular to the first path between the intermediate position and the closed position (see Figures 5 and 2).

The Examiner further states that as to claim 3, Tedesco discloses, wherein the first path is linear (compare Figures 8 down to 6).

The Examiner also states that as to claim 5, Tedesco discloses, wherein the second path is linear (compare Figures 6 to 5).

The Examiner further states that as to claim 6, Tedesco discloses, further comprising a carriage 34/34, the carriage being mounted for linear motion (compare Figures 2-6) within the housing, the pawl being mounted within the carriage.

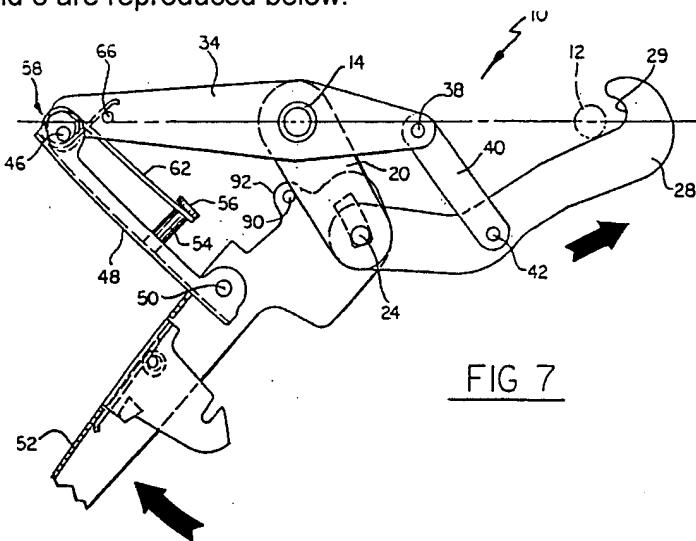
Finally, the Examiner states that as to claim 7, Tedesco discloses, further comprising connection means 68/68 for rotatably connecting the lever handle 52 and the pawl 28.

With respect to the applicants' prior comments regarding Tedesco, the Examiner states that applicants previously argued (see Appeal Brief, pg. 6-7, filed on 7/21/03) that the Tedesco fails to disclose all of the limitations because the assembly "causes the hook 28 to move in a counterclockwise direction". The Examiner also observes that the applicants further argued that "the motion that the Examiner characterizes as linear is described by Tedesco as a rotational motion. . . There is no sequence of two linear motions as perceived by the Examiner". However, the Examiner now contends that while the pawl 28 in Tedesco has rotational motion, the motion is clearly "substantially linear" and the paths are "substantially perpendicular." The Examiner states that by applicants' own admission (referencing applicants' Amendment, page 4, filed on 5/20/04), a pawl 140 can move in rotational motion and still meet the limitation of moving "substantially" linearly. The Examiner contends that the applicants acknowledge that the term "substantially" does not require that the movement be absolutely linear or absolutely perpendicular. The Examiner concludes that Tedesco anticipates the claims.

The Examiner's conclusion is logically deficient and incorrect. The Examiner correctly observes that the applicants understand that the term "substantially" does not require that movement be absolutely linear or absolutely perpendicular. However, the term must be given some significance in construing the claims. The Examiner argues that because a "substantially" linear motion can include some rotational component, and because Tedesco's pawl moves in a rotational motion, then Tedesco must anticipate applicants' claimed invention. The unstated and illogical component predicate of the Examiner's conclusion is that all rotational motion is substantially linear. This is simply another version of the argument that "all dogs are mammals, a cat is a mammal, therefore a cat is a dog."

Tedesco discloses a mechanically complex latch for use in aircraft.

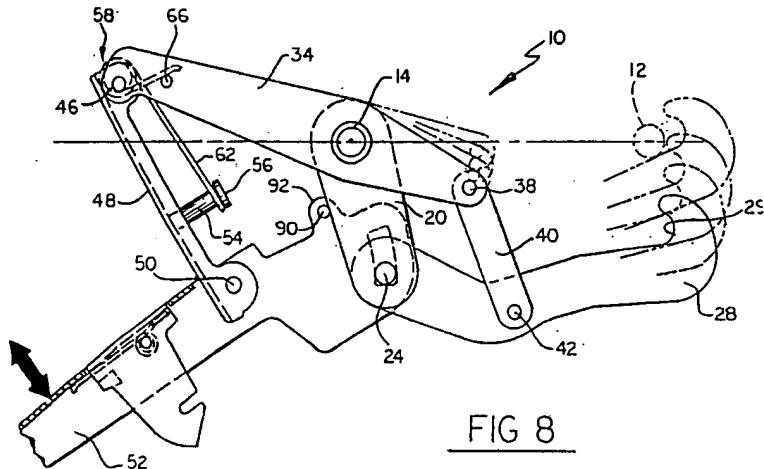
Tedesco Figs. 7 and 8 are reproduced below.



With reference to Fig. 7, Tedesco states that "because cover 48 prevents the free clockwise rotation of handle 52, the clockwise rotational motion and force applied to handle 52 is transferred at cover pin 50 to pin 24 as a counterclockwise motion that causes the hook 28 to move in a counterclockwise direction about the mounting bushing 14. This is best seen in FIG. 7 . . ." (col. 5, lines 22-28, emphasis added). Continued

rotational movement of the handle 52 is then transformed by the complex linkage of the latch to clockwise rotational motion of the hook 28, as shown in Fig. 8. There is nothing in Tedesco to indicate that this rotational motion is "substantially linear" as required by applicants' claim 8.

Similarly, the subsequent motion of the hook 28 illustrated in Fig. 8 is rotational motion around the pivot point 14. There is nothing in Tedesco to indicate that this motion is "substantially linear" such as is required by applicants' independent claim 8. Further, there is no sequence of two substantially linear motions.



This sequence of two rotational (not linear) motions is confirmed by Tedesco's description of closure of the latch:

When the low profile latch 10 is to be closed, it will be seen from FIG. 8 that a counterclockwise motion of handle 52 will cause the latch 28 to be lifted to a point to the right of keeper 12. Further rotation in a counterclockwise direction of handle 52 will cause the hook 28 to rotate in a clockwise direction for closing upon keeper 12. This movement is shown in FIG. 7 with the motion of the handle 52 and hook 28

opposing the arrows shown therein. (col. 5, lines 42-50, emphasis added).

With respect to applicants' dependent claims, claims 3 and 5 each require linear motion rather than "substantially linear" motion. Since Tedesco discloses rotational motion, there is no possibility that the limitations of claims 3 or 5 could be fully met by Tedesco. Claims 6 and 7 depend from claim 5, and consequently, their respective limitations could not possibly be met by Tedesco's disclosure.

The rejection entered under 35 U.S.C. 102(b) of claims 3, and 5-8 over Tedesco should be reversed for these reasons.

Finally, there is nothing in Tedesco that would suggest applicants' presently claimed invention to one of ordinary skill in the art. Thus, that invention is unobvious over Tedesco.

VIII. Conclusion

As all claims as amended are believed to be in condition for allowance, an early favorable action and reversal of the rejections entered by the Examiner are earnestly solicited.

Respectfully submitted,



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CLAIMS APPENDIX

CLAIMS ON APPEAL:

3. A linear compression latch according to claim 8 wherein the first path is linear.
5. A linear compression latch according to claim 8 wherein the second path is linear.
6. A linear compression latch according to claim 5 further comprising a carriage, the carriage being mounted for linear motion within the housing, the pawl being mounted within the carriage.
7. A linear compression latch according to claim 6 further comprising connection means for rotatably connecting the lever handle and the pawl.
8. A linear compression latch comprising:
 - a housing;
 - a lever handle rotatable by an operator between a first position and a second position, the lever handle being mounted in the housing;
 - a pawl mounted for substantially linear motion, the pawl being actuated by rotation of the lever handle and traveling substantially linearly between an open position to a closed position as the lever handle is rotated between the first position to second position;
 - wherein the pawl is mounted to travel between the open position along a first path and an intermediate position; and
 - wherein the pawl is mounted to travel in a second path in a direction substantially perpendicular to the first path between the intermediate position and the closed position.